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ABSTRACT

In order to explore the perceived conflict between teacher education programs and liberal arts and sciences programs this study examined faculty and institutional principles for good practice in undergraduate education at a comprehensive college. For the study, 14 teacher education (TE) and 10 liberal arts and sciences (LAS) (all from the mathematics/sciences division) full-time, senior faculty completed two instruments: Faculty Inventory Principles for Good Practice in Undergraduate Education and Institutional Inventory Principles for Good Practice in Undergraduate Education. The inventories were designed to examine individual faculty behaviors and institutional policies and practices for consistency with the Seven Principles for Good Practice in Undergraduate Education. Data were analyzed and treated for descriptive, correlational, and differential measures. Results found no statistically significant differences between the two groups of faculty. There were however, good practice variables that were associated with professional propensities in both faculty and institutional areas. TE faculty demonstrated higher levels of good practice in encouraging cooperation among students, active learning, and respect for diverse talents and ways of learning. On the other hand, LAS faculty demonstrated better practice in institutional variables of climate, curriculum, faculty, and facilities. (Contains 30 references.) (JB)

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A comparison of Faculty and Institutional Practices Between Teacher Education and the Liberal Arts and Sciences

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ED 377 190

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Running Head: Principles for Practice

ABSTRACT

Programs of Teacher Education have been characterized by conflict between the Liberal Arts and Sciences and Professional Education. This study examined 133 variables of faculty and institutional principles for good practice in undergraduate education among teacher education (TE) and Liberal Arts and Sciences (LAS) faculty in a comprehensive college. Results indicated that there were no overall significant differences between TE and LAS faculty. Results also indicated that TE was more responsive to faculty practices and LAS toward institutional practices.

A Comparison of Faculty and Instituional Practices Between Teacher Education and the Liberal Arts and Sciences

The coexistence between a liberal course of study and the professional course of study has long been a source of controversy in higher education for almost 200 years. The impetus for a liberal arts focused higher education began with Cotton Mather (1702) and continues to influence programs of study into the twenty-first century (Murray and Fallon, 1989). Educational criticism of the liberal arts as the sole higher education curriculum in the late eighteenth century was pressed by two generations of agitation led by Francis Wayland, Henry Tappan, and Andrew White which resulted in the passage of the Morrill Act (1862). The Morrill Act recognized that the practical needs of society could be met by higher education and set forth the framework for the creation of professional programs of study within higher education. Although professional programs originally began in the fields of agriculture and science, by the late nineteenth century they had expanded to include teacher education as was evidenced by the nationwide creation of normal schools.

This growth of professional programs in higher education has been characterized by conflict between the liberal arts and professional studies that continues today. The first of these principle based conflicts occured at Yale in 1868 when Yale's Sheffield Scientific School's professional program issued a call for new principles of education which was a drastic departure from the liberal arts philosophy of the Yale report of 1828. This tenor expounded and manifested itself in multitude of public higher education reforms ranging from Woodrow

Wilson's national service emphasis (1896) to Harvard's classic report on general education (1945) and today's voice of liberal learning (Oakeshott, 1989). At issue throughout the conflict between the liberal arts and professional studies was not the scholarly quality of a higher education, but rather the purpose or process thereof depending upon the era, institution, or societal demands.

Teacher education, commonly associated with professional studies, logically entered into this conflict in the late nineteenth and early twentieth century. At that time differences stemmed from the question of whether teachers were trainers or educators. As teacher education emerged into an academic discipline, developed its emphasis on education, responded to societal needs for public schooling, and became established in higher education by its own right, other disciplines in the liberal arts and sciences insisted upon influence in making decisions as to how prospective teachers were to be prepared. After all, education was not the sole dominion of teacher education programs - it was an institutional responsibility and endeavor. Consequently inter and intradisciplinary conflicts emerged, professional lines were drawn, reform movements recruited true believers, and all eventually culminated in a frenzy of local, state, as well as national microscopic dissections of teacher education practices.

As in the past with Philosophy and Science, the Liberal Arts and Sciences (LAS) and Teacher Education (TE) each offered respective means and ends to the professional education of teachers. Nowhere has this difference visibly manifested itself more than in the LAS based report of the Holmes group (1986) and the TE based NCATE standards (1990).

Historically replicated the differential issue was not the emphasis upon the quality of teacher education program graduates but rather the purpose and process of that education.

Thus if nothing else existed in common between the proponents of a LAS or TE focused professional education curriculum it was the necessity for an interdisciplinary based, scholarly supported, and experientially reinforced teaching personnel preparation program. Moreover, there were no rules for determining which of the two were more effective. The LAS defended vague broad intellectual perspectives and TE its claim of social usefulness. Kennedy (1989), however, found that the most compelling argument for effective professional education strategies was not a sole approach to either but rather the importance placed upon curricular coherence.

Coherence could be found in either the LAS or TE approach to the professional education of prospective teachers. The current state of preservice teacher education programs in the country, however, suggested that higher education preferred the TE professional study approach rather than the LAS general education approach. In 1990 515 institutions of higher education were using the TE professional program of study model (NCATE, 1990) whereas 123 followed the LAS program of study model (Holmes Group, 1986; Yinger & Hendricks, 1990). It was also important to note that merely because an institution of higher education preferred the TE professional study approach that it did not regard the general education of preservice teachers in the Liberal Arts and Sciences as unimportant. General Education was considered an integral component in the design and delivery of the TE curriculum (NCATE, 1987)

whereas the LAS model prohibited a baccalaureate major in education to be replaced by a serious general/liberal program of study and a standard academic subject major (Holmes Group, 1986). Some investigators suggested that a LAS program of study was better than a TE program of study (Andrew, 1990; Murray & Fallon, 1989) in preparing teachers and others suggested that a TE program of study was more effective (McDiarmand, Ball & Anderson, 1989; McKeachie, Pintrich, Lin & Smith, 1986).

The debate about the LAS or the TE program of study for prospective teachers based on decades of controversy was not likely to be universally accepted or rejected regardless of the rhetoric espoused or researched. The reality of higher education suggested that curricular change was glacial in speed and involved differences between conflicting or contrasting concepts (Rudolph, 1977). Thus, it was initially clear that the purpose of this study was not to be a definitive and detailed examination of how the LAS expanded, divided, and intruded on TE. Rather, TE must accept the fact that the infusion or subfusion of the LAS into TE was real and capable of many definitions.

Patience has not been a visible quality of TE reformists and it must be from the collective frustration of both LAS and TE faculty that there has emerged the "academic truism that changing a curriculum is harder than moving a graveyard" (Bragdon, 1967). Albeit, acceptance of that reality and identification of defined effective practices in higher education (Chickering, Gamson, & Barsi, 1987a; 1987b) became the framework of investigation as opposed to wagering a major battle over

what the TE curriculum in a four-year comprehensive college should be. The battle in which the LAS and TE contenders have been engaged in a sense has known no beginning or ending, in large part because teacher education is a uniquely vital entity comprised of internal sufficiency and external sources of change that only impulse may reveal. Therefore the thematic emergence in clarification of TE by comparison of interdisciplinary faculty and institutional strengths was an appropriate and relevant response by a professional education unit if it was to ensure that education students received an integrated course of study that was offered by faculty in the LAS as set forth by national accreditation standards (NCATE, 1990).

METHOD

Even though the actual content of the LAS course of study varied and was somewhat arbitrary, its outcome was not. The same also held true within TE due to the variety of existing knowledge bases, reform movements, and programs of study. A common unifier, however, was the efficacy of a thorough and centrality based general education for TE students. In response to that commonality it was necessary to identify faculty and institutional variables regarded by the LAS disciplines as constituting good practice within the undergraduate curriculum. Subsequent to review of LAS effective general education practices the selected comparative instrument between LAS and TE was the Faculty and Institutional Inventories of Principles for Good Practice in

Undergraduate Education (Chickering, Gamson, & Barsi, 1987a; 1987b). The instruments were a valid and reliable measurement of 70 faculty and 66 institutional variables effecting sound practice within the context of general education and professional study in an undergraduate curriculum.

Subjects and Setting

A sample of twenty four faculty (14 TE and 10 LAS) from a four year comprehensive college participated as subjects. The mean number of years of faculty teaching experience at the institution was 12.1 years (7.15 TE and 17.1 LAS). All subjects were full time faculty members with 78% possessing senior faculty rank within the institution (64% TE and 92% LAS). Subjects were faculty members from two of seven academic divisions in the college. Aside from the Education Division which was responsible for all teacher education programs, the LAS subjects were randomly selected from one of the remaining six academic divisions of the college. TE faculty (n=14) were selected from the Education Division and LAS faculty (n=10) were selected from the Mathematics/Sciences Division.

Procedures

A review of literature and existing instrumentation with LAS diciplines was conducted to identify relevant and appropriate measures of effective practice under the context of general education in the undergraduate curriculum. Although the institution's compatability with a nationally recommended core curriculum for general education

(Cheney, 1989) was already operative, variables of effective faculty and institutional practices to measure that end were absent. Consequently indices of good practice for faculty and institution were generated. Based upon such, two valid and reliable instruments were selected as study instrumentation. These instruments were: (1) Faculty Inventory Principles for Good Practice in Undergraduate Education (FIP); and (2) Institutional Inventory Principles for Good Practice in Undergraduate Education (IIP) (Chickering, Gamson, & Barsi, 1987a; 1987b). TE and LAS faculty completed both FIP and IIP inventories with total anonymity and confidentiality to ensure that responses were honest and accurate reports of individual faculty behaviors and the institutional environment.

Instrumentation

The "Inventories of Good Practice in Undergraduate Education" (Chickering, Gamson, & Barsi, 1987a; 1987b) were a part of a national project in 1986 that measured "Seven Principles for Good Practice in Undergraduate Education" (American Association for Higher Education, 1987). The inventories were designed to examine individual faculty behaviors and institutional policies and practices for consistency with the Seven Principles for Good Practice in Undergraduate Education.

The inventories were not neutral and expressed a point of view in each of the seven principles. Those principles were anchored in decades of research about teaching, learning, and the college experience. The created purpose of the instruments were to use results as a stimulus to

become more effective at both faculty and institutional levels (Chickering, Gamson, & Barsi, 1987a; 1987b).

The inventories consisted of two parts: (a) FIP; and (b) IIP. The FIP had seven sections, one for each principle: (1) Student-faculty contact; (2) Cooperation among students; (3) Active learning; (4) Prompt feedback; (5) Time on task; (6) High expectation; and, (7) Respect for diverse talents and ways of learning. The IIP had six sections, that addressed policies, practices, institutional norms and expectations that supported the principles of good practice: (1) Climate; (2) Academic practices; (3) Curriculum; (4) Faculty; (5) Academic support services; and, (6) Facilities.

Measures

Both the FIP and IIP instruments contained extreme positional measurement scales. The scale values were as follows: 5 = very often; 4 = often; 3 = occasionally; 2 = rarely; and 1 = never. The FIP contained seven variables comprised of seventy measures and the IIP contained six variables comprised of sixty-six measures. The IIP also had a "don't know" response within the measurement scale. "Don't know" responses where analyzed independently and not included in data analyses for the IIP.

Data Analysis

Data were analyzed and treated for descriptive, correlational and differential measures. Data treatment was intended to represent a comparative spectrum of measures considerate of the non-neutrality of

instrumentation. Data were designed and intended to provide a basis for diagnosis of effective practice between TE and LAS faculty rather than as a basis for summative evaluation or performance judgments.

Bivariate descriptive analysis was used to examine the relationship between the TE and LAS faculty and the variables of the FIP and IIP (Hamilton, 1990). Descriptive analysis was used for general data summarization and identification of salient features and did not involve any hidden assumptions about where the data came from (Freedman, Pisani, & Purves, 1978). Descriptive analysis was used solely for the purpose of characterizing the data collected.

Correlational data analysis was treated to express the magnitude of relationship between TE and LAS faculty as opposed to proving causality of faculty discipline to good practices (Pagano, 1990). The Spearman rank order correlation was used for those data analysis. Spearman rank order correlation was considered the appropriate treatment because the Pearson product moment correlation was a measure of continuous, linear function (McBurney, 1990) and would likely not be considerate of the independent ranking (Pagano, 1990) of good practice by the TE and LAS faculty on the FIP and IIP.

Differential analysis of data was achieved by a Wald-Wolfowitz Runs Test and Kruskal-Wallis H Test. Wald-Wolfowitz was used to evaluate the significance of a difference between TE and LAS groups as a non-parametric alternative to the t-test for independent samples and was selected instead of the Mann-Whitney U test as U was less effective in determining differences between two groups that differ in the shape of the dependent variable (Stat Soft, 1987). Kruskal-Wallis H Test was

used as a non-parametric equivalent of one-way ANOVA because it did not assume population normality (Pagano, 1990) between TE and LAS faculty. Only the composite FIP and IIP were treated by Kruskal-Wallis to render general verification of other non-parametrics used. It was appropriate in the event of gross violation with respect to the assumptions of the analysis of variance and provided an excellent approximation with the small sample size.

Levels of Significance

For statistical purposes, alpha value was established at $p<.05$. For general comparative purposes in higher education settings, alpha value was established at $P<.1$. Dual alpha values were considered appropriate based upon: (1) The conflicting nature of the disciplines and the professions; (2) The descriptive and comparative purpose of the study instead of causality about performance; and, (3) The diagnostic, not summative, intent in utilization of results.

RESULTS

Descriptive Results

The range of descriptive data was compared against the following scale for descriptive comparisons: 1.0 - 1.49 - never; 1.5 - 2.49 = rarely; 2.5 - 3.49 occasionally ; 3.5 - 4.49 = often; and 4.5 - 5.05 = very often. Mean composite data indicated that both TE (3.87) and LAS (3.63) faculty rated faculty Principles for Good Practice in

Undergraduate Education as occurring often. With respect to mean composite data for institutional principles for good practice TE (3.13) rated such as occurring occasionally as did LAS (3.27).

TE rated the faculty principle of high expectations (4.16) as the highest occurring good practice and prompt feedback (3.36) as the least occurring good practice. LAS rated the faculty principle of time on task (4.14) as the highest occurring good practice and active learning (3.11) as the least occurring good practice. In both sample populations this indicated that good faculty practices occur occasionally.

Insert Table 1 about here

LAS rated the institutional principle of facilities (3.73) as the highest occurring good practice and faculty (2.98) as the least occurring good practice. TE rated the institutional principle of facilities (3.43) as the highest occurring good practice and curriculum (2.90) as the least occurring good practice. It was interesting to find that both TE and LAS rated facilities as the highest institutional good practice and curriculum and faculty as the lowest institutional good practices.

Insert Table 2 about here

With respect to knowledge about institutional practices TE faculty possessed a greater lack of understanding (9.84 %) than did LAS faculty (5.90%). At the extreme, TE faculty possessed a high lack of knowledge about institutional practices (39.39%) whereas LAS faculty was less than

half of that rate (19.69%). Results indicated that TE faculty had almost twice as much a lack of understanding about institutional practices as did LAS faculty.

Insert Table 2 about here

Correlational Results

There were no positive relationships between being TE and LAS for good institutional practices. Even though there was a low negative relationship between TE and LAS faculty and one's unfamiliarity with institutional practices, such was not significant ($r = -.135$). These data appeared to support descriptive results with respect to institutional practices.

Data analysis indicated that by being a TE faculty it was moderately more likely that one would encourage active learning ($r = -.600$, $p = .002$) than as a LAS faculty. Other faculty relationships identified as being related to TE or LAS included encouraged cooperation among students ($r = -.138$) and respecting diverse talents and ways of learning by students ($4 = -.270$). Although these two variables were related to being TE faculty neither was statistically significant.

Insert Table 3 about here

Differential Results

With respect to composite institutional and faculty good practices measures there were no general differences between TE and LAS faculty.

Kruskal-Wallis analysis, however, did not measure individual variables within either institutional on faculty good practices. Results from a general respect appeared to be appropriate given the assumption of continuity of distribution and the number of tie scores (Roscoe, 1975) encountered on the 136 variable measures .

Insert Table 4 about here

Yet, data analysis using Wald-Wolfowitz runs indicated statistically significant differences for individual variables in both faculty and institutional practices. Results between TE and LAS on good faculty practices inidcated two statistically ($P<.05$) and three educationally ($P\leq.1$) signigicant differences. Results between TE and LAS on good institutional practices indicated five statistically ($P<.05$) and no educationally ($P\leq.1$) differences.

Differences among 70 measures of faculty practices indicated that TE was significantly more involved in performing good faculty practices than were the LAS. Those practices were statistically significant for encourages active learning ($p = .01$). Educationally significant were encourages student cooperation ($p = .1$) and respects diverse talents and ways of learning ($p = .1$). LAS faculty were more significantly involved with encourages student-faculty contact ($p = .04$) than TE faculty. The number of runs was the main statistic of this treatment to determine significance and such also indicated in a composite manner that TE was educationally more involved in performing good faculty practices ($p = .1$) than the LAS.

Differences among 6 measures of institutional practices indicated that the LAS were significantly more involved in performing good institutional practices than was TE. All differences were statistically significant for: Faculty ($p = .01$); Facilities ($p = .01$); Curriculum ($p = .04$); and, Institutional Climate ($p = .04$). Additionally, the LAS faculty were significantly more aware of institutional good practices ($p = .04$) than TE faculty.

Insert Table 5 about here

DISCUSSION

The purpose of this study was not to prove per se whether TE was better or worse than the LAS in terms of good faculty and institutional practices in a comprehensive college. Lanier and Little (1986) identified that teacher educators encountered problems of academic stratification while Boyer's (1987) observation raised serious problems in replacing professional education courses with arts and sciences courses to improve teacher education. Considering the plethora of scholarly inquiry on both sides of the TE versus the LAS orientation it was almost an exercise in futility to prove either theoretical postulate.

Rather, it was more beneficial to compare and contrast TE and LAS faculty on commonly accepted principles of faculty and institutional good practice in undergraduate education. Before any legitimate improvement in the professional education of teachers can be

operationalized, both TE and the LAS must identify and recognize respective contributions to that process. As supported by the literature, the purpose of quality was not at issue but instead the process of practice.

Ducharme and Agne (1982) found that TE faculty had "difficulty in adjusting to and accepting the norms and expectations of academe" (p. 33). Results of this study indicated that there were no statistically significant differences between TE and the LAS in the genre of faculty and institutional good practices in undergraduate education. Thus, overall it appeared that TE and LAS faculty had more in common than they did differences.

There were, however, good practice variables that were associated with professional propensities in both faculty and institutional areas. TE faculty were more inclined to demonstrate higher levels of good practice in: encouraging cooperation among student; active learning; and, respect for diverse talents and ways of learning. LAS faculty were more inclined to demonstrate higher levels of good practice in institutional variables of: Climate; Curriculum; Faculty; and, Facilities. At specific levels it was natural to find differences. For example TE was more involved with certain teaching variables. Such was a reasonable result for after all, teaching is at the core of teacher education. Yet results indicated that overall TE and LAS had no significant differences in good faculty practices. While LAS faculty were more inclined to demonstrate high levels of good institutional practice, results indicated no significant overall differences in this area as well.

If anything could be specifically derived from the results it was that TE faculty needed to become more familiar with institutional good practices. Results indicated that TE faculty were almost twice as much unknowledgeable about institutional practices. It was therefore reasonable to surmise that if TE desired to achieve greater recognition of its good practices that it become more involved with institutional practices.

Pritchard, Fen and Buxton (1971) suggested that no faculty was as much criticized or a "different breed" as TE. These results indicated that with respect to faculty and institutional principles for good practice in undergraduate education that stereotypical criticism or differences of TE faculty in relation to LAS faculty were not warranted. With respect to the positive professional self concepts in both TE and LAS faculty, however, it is now time to collaboratively advance on those common strengths while recognizing the subtle differences of each's contribution so as to solidify the interdisciplinary purpose of quality while accommodating respective processes in professional teacher education.

REFERENCES

American Association for Higher Education. (1987). Seven Principles for Good Practice in Undergraduate Education. Racine, WI: The Johnson Foundation, Inc.

Andrew, M.D. (1990). Differences between graduates of 4-year and 5-year teacher preparation programs. Journal of Teacher Education, 41(2), 45-51.

Boyer, E. (1987). College: The Undergraduate Experience in America. New York: Harper and Row.

Bragdon, H.W. (1967). Woodrow Wilson: The Academic Years. Cambridge, MA: Harvard University Press (p. 293).

Cheney, L.V. (1989). 50 Hours: A Core Curriculum for College Students. Washington, DC: National endowment for the Humanities.

Chickering, A.W., Gamson, Z.F., & Barsi, L.M. (1987a). Faculty Inventories of Good Practice in Undergraduate Education. Racine, WI: Wingspread.

_____. (1987b). Institutional Inventories of Good Practice in Undergraduate Education. Racine, WI: Wingspread.

Ducharme, E.R. & Agne, R.M. (1982). The educational professorate: A research based perspective. Journal of Teacher Education, 33 (6), 30-36.

Freedman, D., Pisani, R. & Purves, R. (1978). Statistics. New York: W.W. Norton & Company.

Hamilton, L.C. (1990). Modern Data Analysis. Belmont, CA: Wadsworth.

Harvard Committee. (1945). General Education in a Free Society. Cambridge, MA: Harvard University Press.

Holmes Group. (1986). Tomorrow's Teachers. East Lansing, MI: Author.

Kennedy, M. (1989). Means and Ends in Professional Education. East Lansing, MI: National Center for Research on Teacher Education.

Lanier, J.E. & Little, J.W. (1986). Research on teacher education. In M. Wittrock (Ed.), Handbook of Research on Teaching (3 ed.). New York: Macmillan.

Mather, C. (1961). Magnalia Christ: Americana. In R. Hofstadter & W. Smith (Eds.). American Higher Education: A Documentary History: Vol. 2. (pp. 13-19). Chicago: University of Chicago Press.

McBurney, D.H. (1990). Experimental Psychology (2 ed.). Belmont, CA: Wadsworth.

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McDiarmid, G.W., Ball, D.L., & Anderson, C.A. (1989). Why staying one chapter ahead doesn't really work: Subject-specific pedagogy. In M. Reynolds (Ed.), Knowledge Base for the Beginning Teachers (pp. 193-205). Oxford, England: Pergamon.

McKeachie, W., Pintrich, P., Lin, Y. & Smith, D. (1986). Teaching and Learning in the College Classroom: A Review of Research Literature. Ann Arbor, MI: National Center for Research to Improve Postsecondary Teaching and Learning.

The Morrill Act, 1862. (1981). In R. Hofstadter & W. Smith (Eds.). American Higher Education: A Documentary History: Vol. II. (pp. 568-569). Chicago: University of Chicago Press.

Murray, F.B. & Fallon, D. (1989). The Reform of Teacher Education for the 21st Century: Project 30 year one Report. Newark, DE: Unversity of Delaware.

National Council for Accreditation of Teacher Education. (1990). 36th Annual List of Accredited Program/Units. Washington, DC: Author

NCATE Standards, Procedures, and Policies for the Accreditation of Professional Education Units. Wahsington, DC: Author.

Oakeshott, M. (1989). The Voice of Liberal Learning: Michael Oakeshott on Education. New Haven, CT: Yale University Press.

Pagano, R.R. (1990). Understanding Statistics in the Behavorial Sciences (3 ed.). St. Paul, MN: West.

Pritchard, K.W., Fen, S.N., & Buxton, T.H. (1971). Social class origins of college teachers of education. Journal of Teacher Education, zz(2), 219-228.

Roscoe, J.T. (1975). Fundamental Research Statistics for the Behavorial Sciences. (2 ed.). New York: Holt, Rinehart & Winston.

Rudolph, F. (1977). Curriculum: A history of the American Undergraduate course of study since 1636. San Francisco: Josey-Bass.

Stat Soft. (1987). Macintosh Statistical System. Tulsa, OK: Author.

Wilson, W. (1986). Princeton in the Nation's Service. In R. Hofstadter & W. Smith (Eds.). American Higher Education: A Documentary History: Vol. II. (pp. 684-695). Chicago: University of Chicago Press.

Yinger, R.J. & Hendricks, M.S. (1990). An overview of reform in Holmes Group institutions. Journal of Teacher Education, 41 (2) 21-26.

Table 1

Descriptive Statistical Values Between TE and LAS on Faculty Inventory

Variable	M	Md	S	SE	R
Teacher Education (n = 14)					
1. Composite Inventory	3.87	3.99	.436	.116	1.56
2. Student Contact	3.55.	3.65	.486	.130	1.80
3. Student Cooperation	3.88	3.85	.597	.160	1.80
4. Active Learning	3.89	3.95	.515	.138	1.50
5. Prompt Feedback	3.36	3.45	.460	.123	1.60
6. Time on Task	3.87	3.75	.719	.192	1.80
7. High Expectations	4.16	4.25	.674	.180	1.80
8. Respects Diverse Talents	3.83	4.10	.547	.146	1.50
Liberal Arts and Sciences (n = 10)					
1. Composite Inventory	3.63	3.63	.481	.152	1.67
2. Student Contact	3.84	3.90	.620	.196	1.90
3. Student Cooperation	3.25	3.40	.896	.283	2.70
4. Active Learning	3.11	2.90	.638	.202	2.40
5. Prompt Feedback	3.52	3.55	.358	.113	1.20
6. Time on Task	4.14	4.10	.566	.179	1.70
7. High Expectations	4.13	4.35	.533	.169	1.70
8. Respects Diverse Talents	3.48	3.50	.639	.202	2.00

Table 2

Descriptive Statistical Values Between TE and LAS on Faculty Inventory

Variable	M	Md	S	SE	R
Teacher Education (n = 14)					
1. Composite	3.13	3.24	.412	.110	1.39
2. Institutional Climate	3.14	3.10	.372	.110	1.18
3. Academic Practices	3.21	3.30	.597	.160	1.76
4. Curriculum	2.90	3.095	.786	.210	2.64
5. Faculty	2.91	2.90	.572	.153	2.10
6. Academic Support	3.18	3.22	.555	.198	1.90
7. Facilities	3.43	3.45	.560	.150	2.11
8. % Don't Know	9.84	4.54	11.130	2.975	39.39
Liberal Arts and Sciences (n = 10)					
1. Composite	3.27	3.44	.523	.165	1.71
2. Institutional Climate	3.36	3.54	.660	.209	1.82
3. Academic Practices	3.21	3.23	.598	.189	1.98
4. Curriculum	3.17	3.31	.424	.134	1.18
5. Faculty	2.98	3.45	.754	.238	2.21
6. Academic Support	3.21	3.17	.646	.204	2.20
7. Facilities	3.73	3.28	.798	.252	1.90
8. % Don't Know	5.90	3.03	7.229	2.286	19.69

Table 3

Spearman rho between TE and LAS on Faculty and Institutional Inventories

Variable	r	z	p
Faculty Practices (n = 70)			
1. Composite Inventory	-.232	1.119	.274
2. Student Contact	.275	1.246	.189
3. Student Cooperation	-.318	1.577	.125
4. Active Learning	-.600	3.520	.002
5. Prompt Feedback	-.147	.698	.498
6. Time on Task	.208	.998	.330
7. High Expectations	-.049	.230	.804
8. Respects Diverse Talents	-.270	1.315	.199
Institutional Practices (n = 66)			
1. Composite Inventory	.195	.934	.363
2. Institutional Climate	.281	1.376	.179
3. Academic Practices	-.024	.115	.875
4. Curriculum	.152	.726	.482
5. Faculty	.153	.726	.481
6. Academic Support	-.042	.201	.822
7. Facilities	.067	.316	.749
8. Don't Know	-.135	.640	.535

Table 4

Kruskal-Wallis H Test Between TE and LAS Faculty on Composite Institutional and Faculty Inventories

Variable	R	R	H	P
Combined Faculty & Institution Inventory	166	134	.278	.60
Composite Faculty Inventory	194	106	1.239	.26
Composite Institution Inventory	159	141	.878	.35

Table 5

Wald-Wolfowitz Runs Test between TE and LAS on Faculty and Institutional Inventories

Variable	Runs	Z	P
Faculty Practices (n = 70)			
1. Composite Inventory *	10	-1.576	.11
2. Student Contact **	9	-2.006	.04
3. Student Cooperation *	10	-1.576	.11
4. Active Learning **	8	-2.436	.01
5. Prompt Feedback	16	1.003	.31
6. Time on Task	14	.143	.85
7. High Expectations	12	- .717	.48
8. Respects Diverse Talents	10	-1.576	.11
Institutional Practices (n = 66)			
1. Composite Inventory	11	-1.146	.25
2. Institutional Climate **	9	-2.006	.04
3. Academic Practices	11	-1.146	.25
4. Curriculum **	9	-2.006	.04
5. Faculty **	8	-2.436	.01
6. Academic Support	12	- .717	.48
7. Facilities **	8	-2.436	.01
8. Don't Know **	9	-2.006	.04

* = Educationally significant at $P \leq .1$
** = Statistically significant at $P < .05$